WHAT IS CLAIMED IS:

1. A method of treating an organ with a thrombolytic agent to promote thrombolysis or prevent the formation of new thrombi, comprising perfusing said organ with a perfusion solution comprising a thrombolytic agent.

2. The method according to claim 1, wherein the organ is an organ removed from a human.

3. The method according to claim 1, wherein said perfusion comprises:

a) connecting said organ to a perfusion circuit, and

b) recirculating the perfusion solution through the organ.

4. The method according to claim 1, wherein the perfusion is conducted until it appears that thrombolysis is substantially complete and measured parameters are within acceptable limits.

5. The method according to claim 1, wherein the thrombolytic agent is selected from the group consisting of Streptokinase; Urokinase; Alteplase, Tenecteplase, other recombinant tissue plasminogen activators, Anistreptase, anisoylated streptokinase, Reteplase, and other mutant tPAs.

6. The method according to claim 1, wherein the thrombolytic agent is Streptokinase.

7. The method according to claim 6, wherein an amount of the thrombolytic agent used is between 10,000 to 1,500,000 IU.

8. The method according to claim 6, wherein an amount of the thrombolytic agent used is between 100,000 to 300,000 IU.

9. The method according to claim 1, wherein an amount of the thrombolytic agent used is from about 5,000 to about 58,000,000 IU, or from about 10 to about 30 or more Units.

10. The method according to claim 1, wherein an amount of the thrombolytic agent used is about 250,000 IU.

11. The method according to claim 1, wherein the perfusion solution further contains a vasodilator.

12. The method according to claim 3, wherein the perfusion circuit has a systolic pressure of less than 60 mm Hg.

13. The method according to claim 3, wherein the perfusion circuit has a systolic pressure between 45 mm Hg and 60 mm Hg.

14. The method according to claim 3, wherein the perfusion circuit has a systolic pressure of about 50 mm Hg.

15. The method according to claim 3, wherein the perfusion solution is recirculated at a temperature between 2°C and 10°C.

16. The method according to claim 3, wherein the perfusion solution is recirculated at a temperature of about 5°C.

17. The method according to claim 1, wherein the organ is perfused for 1 to 20 hours.

18. The method according to claim 1, wherein the organ is perfused for at least 4 hours.

19. The method according to claim 1, wherein the organ is perfused for 4 to 12 hours.

20. The method according to claim 1, wherein the organ is selected from the group consisting of heart, liver, kidney, lung, pancreas and intestine.

21. A method of treating a kidney with a thrombolytic agent to promote thrombolysis or prevent formation of new thrombi, comprising perfusing said kidney with a perfusion solution comprising a thrombolytic agent.

22. The method according to claim 21, wherein the kidney is a kidney removed from a human.

23. The method according to claim 21, wherein said perfusion comprises:

a) connecting said kidney to a perfusion circuit, and

b) recirculating the perfusion solution through the kidney.

24. The method according to claim 21, wherein the perfusion is conducted until it appears that thrombolysis is substantially complete and measured parameters are within acceptable limits.

25. The method according to claim 21, wherein the thrombolytic agent is selected from the group consisting of Streptokinase; Urokinase; Alteplase, Tenecteplase, other recombinant tissue plasminogen activators, Anistreptase, anisoylated streptokinase, Reteplase, and other mutant tPAs.

26. The method according to claim 21, wherein the thrombolytic agent is Streptokinase.

27. The method according to claim 26, wherein an amount of the thrombolytic agent used is between 10,000 to 1,500,000 IU.

28. The method according to claim 26, wherein an amount of the thrombolytic agent used is between 100,000 to 300,000 IU.

29. The method according to claim 21, wherein an amount of the thrombolytic agent used is from about 5,000 to about 58,000,000 IU, or from about 10 to about 30 or more Units.

30. The method according to claim 21, wherein the kidney is perfused for 1 to 20 hours.

31. The method according to claim 21, wherein the kidney is perfused for 4 to 12 hours.

32. The method according to claim 22, wherein the perfusion solution is recirculated at a temperature of about 5°C.

33. The method according to claim 22, wherein the perfusion circuit has a systolic pressure greater than 45 mm Hg and less than 60 mm Hg.

34. The method according to claim 22, wherein the perfusion circuit has a systolic pressure of about 50 mm Hg.

35. A solution for perfusing, washing, or flushing an organ, comprising:

a) a perfusion solution; and

b) a thrombolytic agent,

provided that when said thrombolytic agent is Streptokinase, said Streptokinase is used in an amount of at least about 10,000 IU.

36. The solution according to claim 35, wherein the perfusion solution is optimized for a hypothermic mode of an organ perfusion apparatus.

37. The solution according to claim 35, wherein the thrombolytic agent is selected from the group consisting of Streptokinase; Urokinase; Alteplase, Tenecteplase, other recombinant tissue plasminogen activators, Anistreptase, anisoylated streptokinase, Reteplase, and other mutant tPAs.

38. The solution according to claim 35, wherein the thrombolytic agent is Streptokinase.

39. The method according to claim 38, wherein an amount of the thrombolytic agent used is between 10,000 to 1,500,000 IU.

40. The method according to claim 38, wherein an amount of the thrombolytic agent used is between 100,000 to 300,000 IU.

41. The method according to claim 35, wherein an amount of the thrombolytic agent used is from about 5,000 to about 58,000,000 IU, or from about 10 to about 30 or more Units.

42. The solution according to claim 35, wherein the perfusion solution comprises any suitable organ preservation medium that provides ionic and oncotic support during perfusion.

43. The solution according to claim 35, wherein the perfusion solution further comprises a vasodilator.